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ABSTRACT

Focusing on efforts to devise recruitment and teaching methods relevant to British industrial workers, an account is given of the day release time courses provided by the Sheffield University Extramural Department in association with trade unions and management among miners, steelworkers, and technologists in South Derbyshire, South Yorkshire, and the Scunthorpe area of Lincolnshire. Origins (1952-68) and organization, principles and methods of operation (including staffing, costs, course length, and student activities), and differing patterns of group cohesion are considered, along with student motives for participating. Finally, several criteria are examined for judging the effectiveness of these courses. Seven tables are included. (ly)

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Michael Barratt Brown

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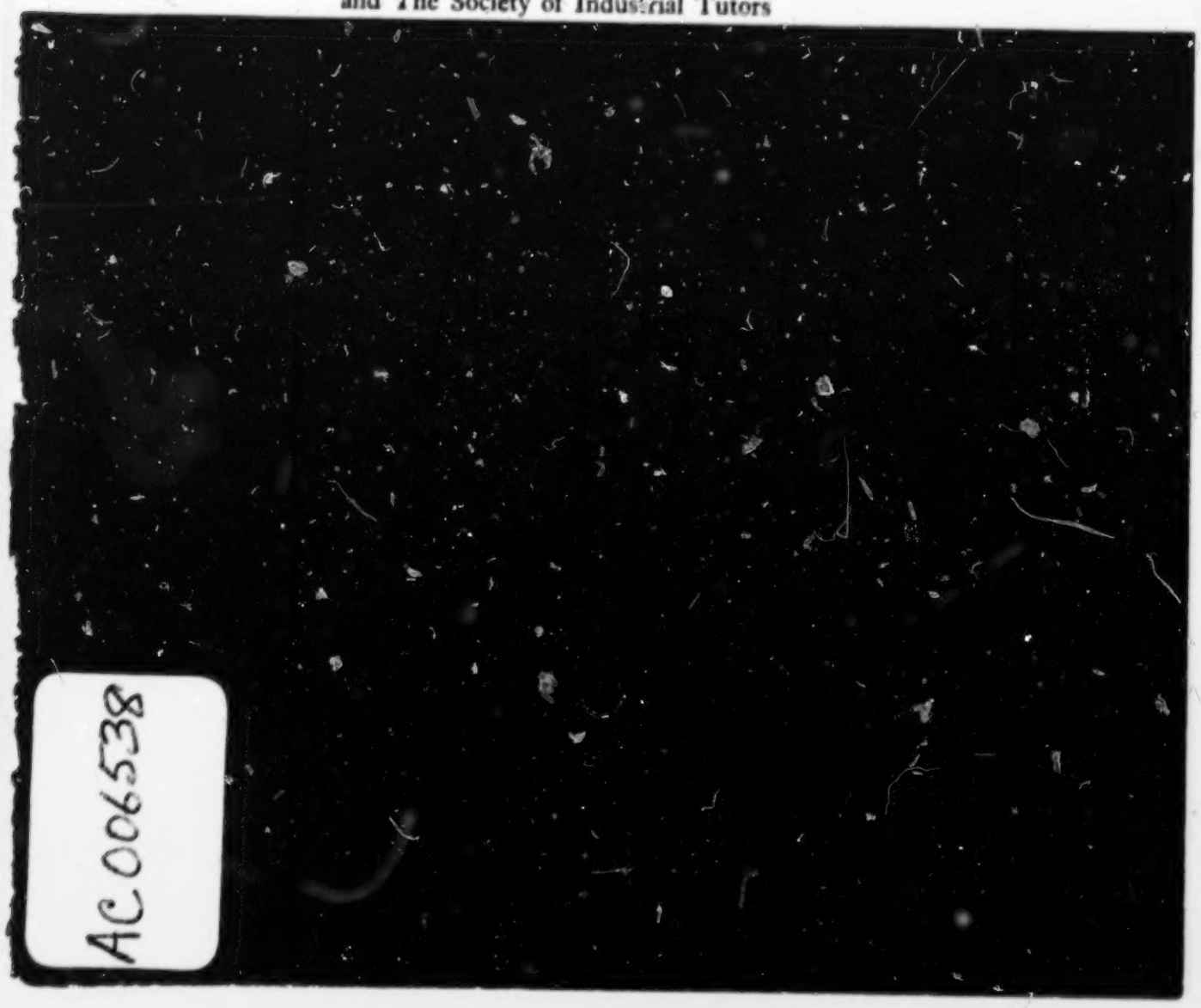
Adult education for industrial workers

National Institute of Adult Education (England and Wales)
and The Society of Industrial Tutors



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SEVEN SHILLINGS AND SIXPENCE

ED036743

Adult education for industrial workers

The contribution of Sheffield University Extramural Department

Michael Barratt Brown

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Foreword

In 1965, the Institute published *Adult education and the industrial community*, by A. H. Thornton and F. J. Bayliss. This was the first considerable account of one of the most important recent developments in British adult education—the attempt to devise methods of recruitment and teaching that working people will see as relevant to their own situation. The pamphlet described the work promoted through day release and factory-based classes in the East Midlands by the Nottingham University Extra-Mural Department and the WEA District Council. Interest in the topic was evidenced by the speed with which the printing was exhausted, and we are hoping to publish a revised and up-dated study of the Nottingham work in 1970.

In the meantime, we have welcomed the opportunity, in association with the recently established Society of Industrial Tutors, to extend the record of this important work. This pamphlet is an account of the parallel developments nurtured by the Sheffield University Extramural Department in association with the trade unions and managements among miners, steel workers and people employed in engineering in South Derbyshire, South Yorkshire and the Scunthorpe area of Lincolnshire. It is a record not only of hard work but of hard thinking by men deeply committed to one of the great traditional aims of adult education, well expressed by Mr Barratt Brown when he says in his conclusion: '[These classes] will be needed the more in the future; above all they will be needed increasingly to give manual workers the self-confidence to establish themselves as no longer "hands" to be manipulated but as whole men, who will share in decision-making with the technologists.'

E. M. HUTCHINSON
Secretary and Editor
National Institute of Adult Education

September 1969

Part 1

Organisation

In 1952 the Sheffield University Extramural Department, in association with the Derbyshire area of the National Union of Mineworkers, started its first classes for trade unionists on a day release basis. There had been a long pre-war history of scholarships for miners in the neighbouring Nottingham coal fields, but this was the first attempt to provide a specially designed course for trade unionists on this basis, although Nottingham University Department of Extra-Mural Studies changed the basis of its courses at about the same time.

The setting (1952-68)

The classes began at a moment when adult education in Britain had reached something of a crossroads. The great wartime and post-war surge of expansion in classes and students had been halted. Government funds were harder to come by. A similar check to growth had occurred in further education (see table 1*).

The special problems of educating industrial workers were becoming evident. There was an obvious gap in provision between the residential courses (at Ruskin, Coleg Harlech, Avoncroft and Newbattle Abbey) and the traditional evening class. The increasing adoption of shift working in industry made attendance at evening classes more difficult. At the same time, a change was occurring in the subjects covered by the WEA classes, as the enthusiasm of its largely non-working-class members moved away from the economic and political to the historical and cultural. The anxiety of the WEA to continue playing its part as a *workers'* educational association was reflected in the 1951 annual conference resolution setting up the Creech-Jones Working Party, from which emerged the pilot schemes of trade union education described in the Clegg report.**

The Sheffield work with the miners began in 1952, and the Clegg report itself became the basis for the very considerable programme of shop steward training on a day release basis embarked upon by the Oxford Extra-Mural Delegacy after 1957.†

Yet it must be said at once that the growth in trade union education after 1952 was slow. Some unions developed their own annual and other schools. Sheffield's work with the miners was extended to steel workers

*All tables appear in the appendix, pp. 26–31.

**H. A. Clegg and R. Adams: *Trade union education* (WEA), 1959.

†F. Pickstock: *The Oxford approach to trade union education* (University of Oxford Delegacy for Extra-Mural Studies), July 1966.

and later to engineers, and similar work developed elsewhere. Thirteen years after 1952, in 1963–66, some three thousand five hundred students were taking part in day release courses throughout Great Britain, about a half of whom were receiving a full day's release. Only about a third of the full-day courses and an eighth of the part-day courses lasted for more than fifteen weeks.* Sheffield's contribution of about two hundred and fifty students a year provided for less than a tenth of the total students but a third of those on the longer full-day courses. Oxford provided another tenth, a sixth of the part-day courses. The over-all figures are small compared with the total adult education provision.

The great educational expansion of the late 1950s was in the technical colleges. Adults as well as young people benefited from this (see table 1), but while technical courses for industrial workers proliferated and the numbers involved in part-time day courses trebled, trade union education as such was hardly considered a part of the technical college responsibility. A report dated March 1966 revealed that 'hardly more than twenty-five colleges', out of over three hundred circulated, 'conducted courses specifically for trade unionists'.**

Looking ahead

It seems likely that, fifteen years after the Creech-Jones report and the beginnings of the Sheffield day release classes, we once again face a road block. There seems little reason to doubt the increasing demand for adult education from what may be called the educationally underprivileged whom the WEA has traditionally sought to serve. The experience of the Sheffield miners' courses in Derbyshire is that year after year, for sixteen years now, there have been at least twice as many applicants as there have been places available. The experience in the South Yorkshire coal field is the same. Shift work and overtime may still make evening classes difficult to organise, but day release continues to attract large numbers, despite the fact that it is well known that reading and written work between classes are obligatory. At the same time, there has been in the 1960s a considerable growth of all students in adult education, and of adult students in further education (see table 1). The Trades Union Congress (TUC) and the employers have begun to take shop steward training very seriously and are hurrying forward to make some provision for the two hundred thousand or more stewards in the country. Thus, courses for shop stewards at technical colleges are rapidly increasing as a result of the activities of the TUC Regional Educational Advisory Committees, although numbers are certainly still in the thousands, not yet in the tens of thousands.

Funds are, however, once again tight and this time the technical colleges are being squeezed as much as the extra-mural departments and the WEA. An attempt to obtain extra funds through the Department of Economic Affairs for 'the development of social responsibility in industry'

*F. Pickstock: *Survey of day release classes for industrial workers* (University of Oxford Delegacy for Extra-Mural Studies), 1965–66.

**Memorandum of evidence submitted to the Royal Commission on Trade Unions and Employers Association by D. F. Bellair of Slough College.

has proved unsuccessful. The future for adult education and for trade union education within it is far from clear. One official report after another, from the National Plan to the TUC annual review, has emphasised the need for flexibility and mobility of labour and for retraining to make a positive asset out of the negative effect of redundancies in declining areas and industries. Yet provision for retraining remains minuscule, compared with Swedish provision, for example, and the first cuts in periods of retrenchment in public spending fall as ever on adult education. This must seem particularly unjust to trade unionists in a period which has witnessed a rapid growth in management education, much of it financed from public funds. It seems certain that a new wave of expansion will take place through the polytechnics and the open university, but it is far from certain that these will provide primarily for adults, except to gain qualifications they have missed at an earlier age.

Principles and methods of operation

This introductory description is necessary if we are to evaluate the work of the Sheffield day release courses for trade unions, and particularly if we are to understand the principles on which they have operated.

It is perhaps worth explaining first what was *not* attempted. There was no attempt to get the maximum number of students through courses as soon as possible. Most courses have not been limited to existing workshop representatives and branch officials of unions but have been open to all active trade union members in an industry. Courses have not been designed primarily as vocational or informational training. The basic principles of work have been the traditional ones of liberal education.

There will be many different views of the meaning of liberal education among its practitioners. But most would agree that it has two essential elements: it must be open-ended, being concerned more with *how* to think than with *what* to think; and it must involve a considerable measure of class participation. To establish a framework of organisation and a style of teaching that would make this tradition relevant to the ways of thought and work of English trade unionists in the mid-twentieth century was the task of the Director of Sheffield's Extramural Department, Maurice Bruce, and of Kenneth Alexander, John Hughes and Royden Harrison, who were successively the initiators and organisers of the Sheffield day release classes. The test of success may well be the extent to which what was done becomes the pattern for trade union education on a larger scale. Some attempt at evaluation will be made later. First, I shall describe the principles of organisation that were developed and then try to give some impression of the style of work.

Auspices

It was a precondition of effective working of the schemes established first in the coal industry and then in the major steel firms of the Sheffield area that both the unions and the managements should feel a measure of responsibility for the courses. In the coal industry this took the financial form of the Coal Board and the National Union of Miners (NUM)

sharing equally the refunding of the wages lost by the men's release from work. In the steel firms the employers met the men's wages but have been able since 1966 to claim this back from the Iron & Steel Training Board, and the unions met the normal class fee for their members who were involved. In each industry the management was anxious to stand back after that and be seen to be doing so, lest the implication of attempted 'brain washing' should be made. The unions, however, took an active interest in the progress of the courses, and in Scunthorpe, where twelve different unions and three separate steel works were involved, a Trade Union Education Committee was set up especially for the purpose (for the unions involved see table 4).

The value of this committee has lain in its dual role of helping to create interest in the courses and of helping students to get over their fears of the objectives and disciplines of the course. The committee has demonstrated the trade union interest in the course, and its members, who are now mostly ex-students, have encouraged a steady stream of new applicants. The Workers' Educational Association plays an important role in publicising the courses in the steel industry and in recruiting students, especially in Scunthorpe where the local tutor/organiser happens to be the secretary of the Trade Union Education Committee.

In the engineering industry one course was begun in Doncaster with one specific firm, International Harvesters, on the same principles as the steel courses. Since this course began and students from other firms have joined the class, courses in the engineering industry have been run in Doncaster on what has come to be called a 'tripartite agreement'. This is an agreement initiated in Doncaster between the Sheffield University Extramural Department, the WEA and the local technical college to make a joint approach to employers and unions in the college's catchment area and thereafter to run courses with the staff resources of all three bodies on the premises of the technical college. This agreement has been accepted by the TUC Regional Educational Advisory Committee as an appropriate channel for its own shop steward training scheme. Although in Sheffield itself the committee deals directly with the local technical colleges, outside Sheffield the agreement applies, or will soon apply, not only in Doncaster but elsewhere. In the engineering industry the training boards have not yet a definite policy about shop steward training and employers have in most cases been finding the men's wages on their day release while the TUC has been finding the fee for the students.

Cost of courses

The respective responsibilities of the employers and the unions in the coal and steel industries were indicated in the previous paragraph. The costs involved per student per year are estimated in table 5 (p. 29). The position in the coal and steel industry is fairly clear; that in engineering much less so. It should not be assumed either that the whole of the wages of the men released is paid by the training boards, even in the case of steel. This will depend on the claims of particular firms to the boards for their whole training programme.

No conclusion on cost effectiveness can be easily reached. Where a man changes his job the increased earnings could be set against the cost of the education. Most students do not change jobs, although many may have had to as a result of redundancies in the coal and steel industry. The cost effectiveness will have to be considered in the general evaluation made later. If classes were larger, if less experienced tutors were used or if tutors taught more sessions in the year, the cost could be reduced. There is little doubt, however, that the quality of the work done would be correspondingly reduced. It has sometimes been asked whether this justifies the use of university level tutors with research work commitments and relatively high salaries and low teaching loads (compared with lecturers at technical colleges, for example). The answer must be considered in the light of at least three factors:

(i) the very real difficulties of teaching this type of student with very wide experience and very limited educational background;
(ii) the general contribution of a university to the culture and education of the community it serves;
(iii) the specific contribution to industrial studies of tutors engaged in this work.

These points will be taken up again in the general evaluation that follows.

Student recruitment

The first problem was the recruitment of students. The leading members of the unions—in both the coal industry and later the big steel works—recruited themselves as the first students. This was most important; their experience of the course led most of them to encourage others to apply, both because they then knew what it was all about and because they approved. The problem remained, however, of determining how wide to cast the net in recruiting to the courses. It was early established in the coal industry courses that any member of the NUM could apply. The NUM is an industrial union and this limitation had the advantage of giving a certain cohesion to the classes. On the other hand, it meant that members of the other smaller unions in the industry, and particularly of the foremen's union, NACODS (National Association of Colliery Overmen, Deputies and Shotfirers), were excluded.

Recruitment to the steel industry courses was from the start quite deliberately thrown open to all members of all unions, whether members held official positions as stewards or not. This was because both management and unions expressed themselves as anxious to cater for potential as well as current workers' representatives. Difficulties would have been caused if recruitment, which involved selection, had led to rivals for union office getting on to the course to the exclusion of the current office holder. No such case has arisen, since existing office holders are in practice always recruited unless too many men are already being released from their department. One limitation on the recruitment for the steel courses has been that white-collar unions have been excluded at management request,

with the exception of members of the white-collar branch of BISAKTA (British Iron, Steel and Kindred Trades Association).

Recruitment to the engineering courses has so far been limited to current union office holders. This has been done at the request of both management and unions. It is hoped that, when many of the existing stewards have had the opportunity to attend a course, the principle may be adopted here too that any trade unionist may apply. It is most unfortunate in our view that the TUC report on *Training shop stewards* should have made no reference to the *potential* steward. It is quite understandable that with something like a hundred and fifty thousand stewards and other workplace representatives in the country and only about five thousand places at present available on day release courses, the TUC should have felt it had to concentrate on the men holding office currently. A similar emphasis on current stewards was found in the TUC and CBI (Confederation of British Industries) joint statements in 1963 and 1967 on day release for shop stewards' training; and the engineering employers have tended to follow this lead. It is of some significance, however, that in the industries where day release is most developed—the coal and steel industries—the Coal Board in the one case and the Iron and Steel Training Board in the other have adopted the wider principle of providing for 'those engaged in or likely to be engaged in part-time work as trade union officials'.

None of this is to suggest that the courses should in any way neglect existing officials' needs or undermine union authority. The aim should be the wider encouragement of applications from keen trade unionists, with applications being channelled through the branch secretary and union officers. The chief method of recruitment remains personal, but printed notices are circulated in pits and works so that information about the existence and openness of the courses has become widespread.

The actual process of recruitment of course members from among the applicants is carried out by the tutors from the Sheffield University Extramural Department. The object of recruitment is not so much to accept or reject as to place an applicant on the right stage of a course. Most of those who cannot be accepted at once are advised to apply again, and many have done so, some men gaining a place only on the third application.

The recruitment procedure entails a meeting of at least three hours with groups of up to thirty applicants; in Derbyshire the procedure takes six hours and has until recently been spread over a weekend at a hotel in Buxton. It is, in effect, more of a class or weekend school than an interview. An exercise in written work follows an introductory talk on note-taking as well as a talk on the subject to be written up. After this exercise group discussions are organised with successive tutors on a variety of trade union and other topical questions.

The main result of this procedure is that it is possible to establish clearly for all applicants that the course is not a 'push-over'; students will be expected to work and to put in time between classes on reading and written exercises required by the tutors; and they will have to submit their individual prejudices to class discussion and their personal preferences to

the development of the class as a whole. None can say thereafter that they were not warned, and some each year do withdraw their applications at this point. It is probably in large part due to this procedure that the wastage is small, and in recent years nearly two-thirds of the students have been regularly completing even the three-year courses (tables 2 and 3). This is the more remarkable in view of the fact that the two industries from which students are mainly drawn—coal and steel—have been suffering a high rate of redundancy and labour run-down in the last decade.

One major problem of recruitment has been the result of the growing proportion of craftsmen in the work force of both industries. Indeed, the applications from craftsmen have begun to equal the applications from other workers in both the coal industry and in steel (see tables 3 and 4), although craftsmen still make up less than a fifth of the labour force in each industry. It was regarded as important both by the NUM in the coal industry and by the process workers' unions in steel that at least parity of numbers should be maintained for process and maintenance workers respectively. To do this, it became necessary for us to accept every non-craftsman who applied and, since in some cases they fell below the required standard in reading and writing, a special preliminary course was devised to bring these men up to the level at which they could join the main course.

The relation of management and the unions to the recruitment procedure has been strictly limited. Managements have the right to say whether a man can be released. With very few exceptions permission has been granted, although some men have had their entry to the course deferred because there were already as many men released from their department or pit as could be spared. It is, however, fairly obvious that some managers are more enthusiastic about the scheme than others, and this difference has its effect on recruitment.

On the union side there have been complaints that some men who have been put on courses only wished to get out of the industry and had no commitment to their union. This may be true (see table 6), but it cannot be shown that they have done so at the expense of more committed men since, with a very few exceptions (mostly of elderly men), no applicant has ever been actually rejected, non-acceptance for a particular course meaning only that acceptance was deferred. On the other hand, it is true that some very busy trade unionists with responsible positions or a large branch membership have felt that the course was too long and too demanding and have either not applied or have withdrawn their applications. An attempt was made in the early days of both the coal and steel courses to meet this criticism, and it should perhaps be looked at again. The Extra-mural Department has been very reluctant to accept the principle sometimes put forward that there is a class of student who could benefit from a short course but is not up to the longer course which has become the norm.

The recruitment procedure for the students from the engineering industry differs from that in coal and steel. The tripartite agreement operated initially in Doncaster has already been referred to. Most if not

all of the students have been current shop stewards, and the unions themselves have recruited the students without any of the recruitment procedure operating in the coal and steel industries. This is not regarded by the tutors as an entirely satisfactory arrangement, since the mix of students has sometimes included men of a very wide range of educational background and union experience. There is also the possibility that some potential applicants may feel that they were overlooked on non-educational grounds. When the existing stewards have been covered, and when others who may be regarded as potential shop stewards are to be catered for, some recruitment procedure will become more necessary.

Length of course

There is (or ought to be) nothing sacred about the number seventy-two as the necessary number of meetings that make a tutorial type class; nor about the number three that spaces them over a three-year period. Teaching is clearly not impossible in the months between April and October. Yet there are evident advantages in a three-year course and one that avoids the summer months. The weekly class, as opposed to a more compressed 'block' day release, allows time for reading, writing, and digestion between classes. The long summer, preferably with a week's summer school for concentrated study in the middle, provides the same opportunity. As a practical consideration holidays and stock-taking periods do actually make release difficult and uncertain in the period from May to September.

The question of part-day release as opposed to whole-day release raises more serious problems. Employers have sometimes wished to start with part-day release 'to see how it goes'. Our experience of this has tended to be uniformly unsatisfactory. Half a day may be better than no release at all, but the teaching and organisational problems are considerable. The classes have almost inevitably to be held on works premises and this generally means not only outside noise to compete with but constant interruptions when stewards can so easily be called out of class to settle disputes. Students have to change immediately before or after the class and inevitably have their attention divided between work and study.

Fortunately, managers generally find that it is as difficult to replace a man for half a day as it is for a day, and whole-day classes are now universally accepted in the Sheffield area. The difficulties of part-day release, however, illustrate well the general problem of time in part-time education. It is necessary to combine sufficiently concentrated periods of study away from work with a sufficient spread over time to allow the yeast to work and the educational process to become established. If one day a week is better than a half-day, two days are better than one. If three years are better than two, four years are better still.

At the start of our work in both the coal and steel industries we ran one-year courses (twenty-four weeks) especially for those leading trade union officials who could not have spared longer. Since then the three-year course has become the standard, although in the steel industry men with considerable union experience and further education are regularly admitted

to the course after the first year and thus in effect have a two-year course. In engineering not all of the students are selected to go on from the first year to the second, so that some in effect have a one-year course.

As has already been mentioned, a preliminary course has been provided especially for those who were not up to the necessary standard in reading and writing to keep up with the others on the regular three-year course. This became increasingly important as the educational standard of most of the applicants rose, particularly among the rising number of craftsmen in the industry, and the face men and other production workers were in danger of being overwhelmed. In Yorkshire, Rotherham and Scunthorpe these preliminary classes have been taken in the men's own time on a Saturday, but in Derbyshire the union has paid for twelve days of day release. In effect, therefore, some men in Derbyshire have had a four-year course.

Day release on most courses means about five hours of actual teaching time in the day—the equivalent of at least two sessions. The coffee and tea breaks and the hour or more for lunch are generally regarded as almost equally important opportunities for tutor-student contact, and as far as is possible catering arrangements are made to facilitate this. Such a day's work evidently means that the three-year course has at least double the teaching time in it of a three-year tutorial. In fact, in Derbyshire the men are released for *two* days a week in the second and third years. Thus, a man who went on the preliminary course will have had in the end the equivalent of at least two hundred and sixty-four sessions in his four years. By contrast, some of the TUC-sponsored courses at technical colleges are for twelve days only, with a syllabus almost as comprehensive as our own.

No-one will pretend that good teaching cannot be done in less than a two- or three- or four-year course. What is quite clear is that a three-year course cannot be squeezed into two years, let alone into one year. What is equally clear, from the experience the Sheffield Extramural Department has had in helping other providing bodies with twelve-week courses, is that such short courses for the kind of student we are dealing with tend to be unsatisfying. Unless the course is simply informational, twelve weeks—that is in effect twelve days—are required just to establish methods of study and to stimulate some capacity to read and digest and begin to think about problems afresh. If the class ends then, it does so just when the student is feeling that he is beginning to see how to make a start. It is not so much that all courses must be of a certain length—over forty-eight or over seventy-two sessions; but that the type of syllabus must be clearly related to the teaching time available.

Syllabus

The responsibility for syllabuses has always rested squarely on the tutors and the Sheffield Extramural Department. Management and unions have been shown what was proposed but have deliberately held back from anything more than formal consultation, although the TUC education department has tended to make specific recommendations. The subject matter has been limited to subjects bearing fairly directly upon the study

of industrial relations. The miners' courses have always been billed as courses on 'Industrial relations and economic problems', the steel workers' courses as courses on 'Trade unions and industrial relations in the steel industry'. The tutors are appointed as lecturers in their own subject (economics, politics or sociology) '*and* industrial relations'. The choice of this central theme is determined as much by the interest of the students as by any expressed request of unions or management. Since the primary aim of the courses remains the general liberal one of helping men to develop their potential, to think for themselves and play a fuller part in society, the actual body of knowledge that is imparted is secondary. What matters is that a subject is treated in sufficient depth and seriousness for fundamental questions to be raised by the students, rather than that students are treated to a Cook's tour of many fields of knowledge, however brilliantly illuminated.

In fact, an inter-disciplinary approach has been adopted that has tried to combine sociological, economic and political analysis within a historical perspective. The first year's work and the preliminary classes have been concerned primarily with developing student skills in studying and communications in general and in committee procedure and debate. In this work the subject is primarily the union, its organisation and structure, an introduction to its history and to the procedure of consultation and conciliation. Controversial questions of union democracy, individual rights, class and race relations are raised from the beginning, but the reaching of solutions is indicated as being the result only of much further study and discussion on the course and thereafter. The second year is designed to provide some body of knowledge of the history and economics of the firm and industry within the wider political, social and institutional setting of our economy. In the Derbyshire miners' courses, with two days a week available, the economics and economic history are separated from the political and social setting to suit different tutors' specialisations. In the third year this body of knowledge is built on to examine problems of planning and choice against an introductory survey of political, economic and social theories and their treatment of the concepts of freedom, equality and efficiency and the conflicts between them. Again, in the Derbyshire miners' courses there is a separation of the study of economic and of political and social theories. The outline syllabus has always been a joint product of the whole team of tutors, on which individual tutors make their own individual variations. It is subject to annual review and revision.

Teaching method

Different tutors will obviously have different methods of teaching; but the traditional lecture followed by questions has been almost entirely abandoned in favour of the seminar type of guided discussion, supported by other student activity, projects and exercises. Indeed, the first year and the preliminary year are mainly devoted to such activities. Students are taught to use a slide rule, to handle blue books and statistics, to prepare a case from material supplied, to chair a meeting, to take notes and write minutes, to play roles of many sorts and to argue for and against opposing

propositions. Reading assignments are prepared by the tutors and some written work, including an occasional long essay or project, is set each week.

Some of the projects completed by students have been of a major order. An outstanding example was a long study by a Rotherham student of the Fairfield experiment. This involved a visit to Glasgow on the student's own initiative and at his expense. Another was the writing up of the complete history of a national wage claim in the steel industry undertaken by a student who was himself on the negotiating body. Most projects tend, however, to be group projects, and may include such varied activities as the surveying of newspaper coverage of particular events, the running of an investment club (without money!), a class reading of Galsworthy's *Strife*, as well as the re-enactment of disputes, the examination of case histories and other role-playing exercises which form a large part of the work, especially in the first year. Students are encouraged to build up their own libraries of basic books and all of them do so, though the size and scope will vary. Books for reference are available from the Extramural Department both as texts and for wider reading. No examination is set, nor is any diploma granted, though a certificate of attendance is provided to students who complete the course. The reason for this is the desire to avoid any division implying 'best' and 'worst' and any narrowing of the syllabus to meet examination requirements.

Associated activities

A number of activities have grown out of the trade union day release classes. Numerous student associations have been born in the first flush of enthusiasm of groups completing their three-year course. Few have survived for long, as ex-students change jobs and move house, take on wider responsibilities and return to the routine of shift work with irregular or regular overtime. Nevertheless, there are several activities that have become established on a permanent basis. The ex-students from the Derbyshire miners' course hold an Easter weekend school each year at the Miners' Holiday Camp in Skegness. A subject of current interest is taken as a central theme, and tutors, ex-tutors and outside speakers take part. The school is generally attended also by several ex-students from the Yorkshire courses. The students from the steel workers' courses in Scunthorpe hold an annual weekend school at Normanby Hall on the same basis. The traditional WEA summer school has in the last two years become an occasion for those students wishing to put in a week's concentrated study to prepare themselves for taking examinations or for entrance to full-time education. A *Bookshelf* is published twice a year by the tutors on the course to review current paperbacks, with reviews occasionally contributed by students. Students have recently become involved in research work undertaken by the Sheffield Extramural Department into secondary employment opportunities in the Yorkshire coal field (for the Department of Economic Affairs) and into holiday times and pit closure results in Derbyshire (for the National Coal Board). Another new departure is the establishment of a course in management techniques for

trade unionists at the request of some of the one hundred or so ex-students from the steel industry in Rotherham.

Staffing

It has been a central principle of the Extramural Department's work that as far as possible a group of students should have one tutor for the whole day for the twenty-four weeks of a year's work. In the first year two tutors are assigned to each group for the year, since the groups are larger and there is more need for personal tuition. Where the year has had to be divided between two tutors, one has taken the group for the whole of each term.

Dividing the day between two or more tutors has always proved unsatisfactory. The reason is not far to seek. The contrast between work and study is so great and the adaptation to one day's study so difficult for most students that they find continuity with one tutor almost essential and the adjustment to different tutors on one day or from week to week almost impossible. In Derbyshire, where the men have two successive days of release, it has however been found possible to use two tutors, one on each day, each deploying his own speciality.

The Sheffield Extramural Department has eight full-time tutors engaged in the work and draws upon part-time tutors from internal departments of the university and from the technical colleges, as well as from WEA tutors in the area. Several have a background of work in industry before they entered university as mature students and two of the department's tutors were themselves members of one of our early miners' courses.

The association with the WEA and the technical colleges has become the basis for co-operation in staffing under the 'tripartite' approach to employers and unions in the engineering industry in Doncaster, Sheffield and Chesterfield. It is hoped that through this scheme something of the experience of the department will be carried over into the new development of TUC shop steward training and that a real measure of co-operation between tutors from different institutions may grow, so that the confusion and overlapping of rival schemes can be avoided. Already the department is providing guidance book lists and syllabuses and encouraging students on short courses to apply for extended release for the longer courses. To this end the department's tutors have recently taken part in the establishment of a Society of Industrial Tutors to act as a professional body in this particular field of work.

Part 2

The challenge and the response

The principles and methods of operation described in Part 1 comprise little that is not common practice in many fields of adult education today and reveal nothing of the flavour of this particular field of adult education. It seems worthwhile, therefore, first to distinguish the kind of men who come on these courses and then to describe some of their responses.

The students

Most students are in their thirties. In the early years of the courses more were older; today more are younger. The vast majority left school at fifteen or even fourteen years of age. Some continued with night school or day release for an apprenticeship. Most come to the courses, however, with a gap of fifteen years since they were involved in any educational effort. A few who joined the preliminary classes, and became not the least distinguished of our students, had not written even a letter since leaving school, nor had they read a book. For all who suffer from this long educational gap the learning process is difficult and has to be slowly and painfully reestablished.

The students on industrial day release courses are of course industrial workers. The context of their working lives is one in which conformity is required and individual initiative is rarely encouraged even within the confines of the job. They are at the same time trade unionists. Many of them are active representatives of their fellows; all or nearly all feel committed to the defence of their fellows, but within the rather narrow context of factory and union and the institutions of industrial relations outside. Only a very few play any part in wider affairs in local government or national politics, although many have hobbies that involve membership and management of clubs and societies.

Such students are essentially pragmatic men with great experience in a rather limited field. A part of their experience consists of struggle and complex negotiation with management, in which unsubstantiated assertion and wild generalisation are known to be of no value. For all these reasons, they tend first of all to argue from a special case—*their* special case—and only with difficulty realise that other cases are different; secondly, they tend to be very weak on theory, even suspicious of theories unless they are

closely related to known facts. A pretty theory which might attract a first-year university student seems just silly to them unless it is obviously relevant to experience.

Such students are moreover prejudiced, in the sense of having pre-judged without having the opportunity or taste for listening to contrary arguments. A questioning and reasoning attitude has often been dulled by limited education, by the nature of their work and by the blandishments of press, radio and television. Of course, this is true of many adults with little formal education, but those who come to trade union courses are generally men of considerable character with great unused and un-developed potential. Tutors soon find with students such as these that their efforts will be most gratefully accepted and their views politely respected, but that any assumption or theory which does not correspond with experience will be sharply challenged, and any covering of ignorance with grand phrases immediately detected.

Motivation

The most important distinguishing mark of students on such courses is their motivation. For many, the decision to apply for the course was one of the most important of their whole lives. Their attitude to the course is almost desperately serious. This provides the motivation for the most conscientious and devoted work; it can also lead to instant discouragement if their interest and enthusiasm is devalued.

While motives may all be strong they are of very different kinds. Some see the course as a way of personal advancement inside the industry or outside. Others wish to improve the service they can give to their fellows through their union work. For most, there may be a little of each of these two, but most of all they feel the need to develop their own capacities. Many regret that they did no work at school and left as soon as they could to earn good money, either because of family circumstances or tradition or often because of the attraction of the high pay of a coal-face worker or steel process man. More and more, applicants in recent years have given what amounts to boredom as their reason for applying. 'I am 35', said one miner, 'I have a telly, a washing machine and a car, my furniture is paid for, the kids are at school, my wife goes out to work. What the hell am I going to do for the rest of my life?'

No-one who teaches students like these is going to have difficulty in maintaining attention or discipline, though they may have a real problem in preserving relevance. They will also have difficulties where there is, as often, a clash of very strong personalities. One of the first and major problems with any group arises from the differences of experience of each member. In the steel industry students come from a dozen different unions (see table 4). In the coal industry they are all members of the NUM but they may come from a dozen different pits. Each believes that the way his union works or the way men do a job at his pit should be regarded as the norm. Other ways of work seem strange and even frightening. Some tutors have had the sense of sitting on a volcano when discussions involve the respective contributions to the industry (or the rates of pay) of main-

tenance and production workers, whether in the coal or steel industry. In one steel class there were wildly exaggerated views of the actual earnings of other workers. One of the great advantages of teaching some trade union history in the first year is that it is possible to fight out inter-union and craft rivalries in the nineteenth-century setting and then proceed to a more sober review of their persistence today.

Contrasts—coal and steel

A most interesting aspect of the courses is the sharp contrast between the groups of students in the two coal fields and the two steel towns. The quality of work and interests and the experience and ability of the students in the groups from these four areas may vary from year to year; but each can be distinguished by certain abiding qualities. Yorkshire miners are blunter, more outspoken, more obstinate, yet no less determined to learn than the Derbyshire miners or either group of steel workers. It is partly the strong Scottish and Durham elements in each group of Yorkshire miners, partly the isolation of Yorkshire mining villages, partly the tradition of struggle between the men and management in Yorkshire that must be looked to for the causes of this phenomenon. Derbyshire miners by contrast are more homogeneous, less isolated; they seem to have inherited a more patriarchal tradition of management (we may think of the Markham family pits around Chesterfield and of the Spencer Union at Bolsover).

Yet with all the differences between Yorkshire and Derbyshire miners, no tutor would mistake either for a group of steel workers. The miners are all conscious of a long history of struggle, of being regarded as the lowest form of industrial life, almost a race apart and a rough and lowly one at that! The steel workers—craftsmen and process men—think of themselves as among the plutocrats, if not the aristocrats of labour, and look back on a hundred years almost without strikes.

Again, although they have all this in common, steel workers in Rotherham and in Scunthorpe are very different. Rotherham is an old steel town and, while a little overshadowed by the real aristocrats of Sheffield, shares with them a certain respect for quality and status and traditional ways of doing things. By contrast, Scunthorpe is a new town. Even ten years ago it seemed like a frontier town until the flowering roadsides, the new civic centre and housing estates began to civilise the windy ridge of ironstone on which the steel works and the town are built. Scunthorpe used to call itself a one-class town and, although differentiation in the clientele of the many pubs and bars has become increasingly evident in the last few years, there is certainly a strong tide of social mobility and self-advancement flowing through the town. The day release classes which are held in Normanby Hall, the ancient seat of the Dukes of Buckingham, and now a Scunthorpe Corporation combined museum, education centre and pleasure garden, reflect all this.

Group cohesion

After one has made distinctions like these, the fact remains that every group has a quality of its own; and this perhaps is the most abiding

impression that a tutor has of day release work. He remembers not individual students but groups. This is in part deliberately devised from the start. At the recruitment procedure the tutors are conscious that they are assembling a group of students that must work as a group together for three years and survive. In choosing who to put in this time and who to defer, group cohesion is always one of the considerations, and the applicants are frankly told, in an introductory talk, that this is so.

The sense of group cohesion is, however, mainly the result of the method of teaching. Guided discussion in which all take part, group projects, role playing and mock-ups, a whole day spent together with one tutor including breaks and lunch—all these combine to create a group spirit. It is created more easily and grows stronger in some groups than in others—most easily among Yorkshire miners, least easily among Scunthorpe steel workers. It lies at the very heart of the success of a day release class. It is not only that in this climate learning proceeds apace for all class members, the more and the less able alike, but the group spirit becomes for students a prototype of social activity, of that social strength which can compensate for individual weakness and which is perhaps the great contribution of the trade unions to our society.

None of this is to say that individuals do not flower in this social climate, only that their flowering is not such as to keep the sun off the others. This is the great danger of all classes where ability is rather unequally distributed. The strength of group spirit is the surest way to rectify this inequality. It is worth remarking, moreover, that what is meant here is not merely that the quicker help the slower, that the more advanced help the backward. This is but a small part of what is involved. Far more important is that in an effective group each individual can bring out his own contribution and all are enriched thereby.

To forestall the condescending smiles of sceptical readers, it needs to be said that tutors of trade union classes soon learn that our society puts an enormous premium upon mental speed—quickness of grasp and response. This is part of the whole competitive environment in which we are brought up—in the home, at school, in the eleven-plus, in the labour market and at work. The quick thinker wins and the slow thinker is lost and may never catch up. Yet it is our experience that, given time and an uncompetitive environment, the greatest advances, the most profound contributions, the real intellectual exercising comes as much from the slow ones as from the quick ones. Again and again, when philosophical questions are raised it is not the quick ones with the grammar school and technical education but the slow plodders, grappling with new ideas until they master them, who get to the heart of the matter.

Just one example must suffice. In a long and open discussion of the problem of choice in welfare provision, the arguments for efficiency in resource allocation were winning over a strict egalitarian line, when the slowest member of the class interjected quietly, 'Isn't the purpose of welfare that *we* should try to reduce the occasions when people feel unequal?' This is perhaps what the day release classes are about.

Part 3

Appraisal

Testing the success or effectiveness of the Sheffield day release courses for industrial workers is not an easy task. Different tests would be applied by different people, depending on what the object of the courses is taken to be:

—some might look for some objective tests of 'better' industrial relations, for example in reduced strike proneness or increased productivity or higher earnings;

—some might estimate the effect of the courses on the election of trade union branch and area officials by comparing the election successes of those who have been through the course against the election successes of those who have not;

—some might calculate the number of students who have gone on to better-paid jobs or further full-time education or taken up new civic responsibilities;

—some might make subjective judgments of the men's development before and after the course.

More effective industrial relations

The causes of strikes or of increased productivity and earnings are so complex and various that education could only be one of many factors involved. The idea that there could be some simple correlation between an increase in education provision and a reduction in disputes would hardly be argued by management or unions. The tutors would wish to argue that their aim is not concerned with either increasing or reducing the incidence or length of strikes, but only perhaps with encouraging more rational decisions on such matters. Nor would they suppose that 'good' industrial relations are a question of harmony rather than conflict. Both management and unions, at different times and for different reasons, may welcome strikes.

There have been three major strikes in the Yorkshire coal field and many short stoppages during the period of the day release courses. The major strikes were in 1955, 1961 and 1966, that is to say at the very start of the courses, in the middle and towards the end of the period. Tonnage lost through stoppages has remained fairly constant apart from these three years, but the Yorkshire coal field has had since 1947 a consistently higher rate of stoppages than the average; and the East Midlands, which includes

Derbyshire, has had a consistently lower rate (see table 6). Thus, there is little evidence to associate the frequency of strikes with either more or less education. The Derbyshire area, with the lowest strike record, has been foremost in the militancy of its political demands for a planned fuel policy. The union officers in this area have also probably established the greatest degree of prior consultation with the Coal Board's area officials about Board policies; and the effectiveness of this could perhaps be related to the day release classes. On the other hand, the day release classes could as well be said to be the result of the attitudes of the Derbyshire union officers as the other way round, since the initiative for the classes came originally from the Derbyshire area general secretary, then the late Mr Bert Wynn.

One comment of a high-ranking Coal Board official deserves to be reported at this point. When asked what advantage the Board derived from the day release courses he replied that 'it keeps forty good men in the industry three years longer than they would otherwise have stayed'. In a period of rapid voluntary wastage that may not have been as unimportant as it sounds.

Absenteeism has often been suggested as a crucial test of industrial relations in the coal industry. Since the mid-1950s there has been a steady increase in the rate of absenteeism in the industry, fastest in Yorkshire, slowest in the East Midlands. There is no doubt that Yorkshire miners, and especially the better-paid face men, have chosen leisure rather than higher weekly earnings as their hourly earnings rate has risen; and this could certainly be associated with increased education! It could be equally related to the absence in South Yorkshire of the pull of competitive comparison with high weekly earnings in other industries such as has existed in the East Midlands. It is a nice question, however, whether low productivity in Yorkshire is the result of a high rate of absenteeism and stoppages or whether the line of causation is the other way round (see table 7).

The coal industry, not only in Britain but throughout the world, has for long been responsible for a high proportion of a country's industrial disputes. In Britain before the war at least half of all man-hours lost through stoppages were in the coal industry although miners made up less than five per cent of the labour force. The coal industry's share of all industry's losses from stoppages has declined markedly in the last decade (see table 5). Although this is at least in part the result of the near halving of the industry's manpower in the decade, other causes must be at work in such a major change. That they involve improvements in education seems, however, to be unlikely. There has been a general improvement in educational provision throughout this century but no significant decline in the incidence of strikes throughout industry. Indeed, the newly emerging strike-prone groups are not the traditional ones like the miners but the more educated groups like draughtsmen, supervisors and bank clerks.

None of these attempts to find objective criteria for better or worse industrial relations seem to be conclusive for the coal industry, let alone to provide any evidence for a correlation between education and industrial

relations. The position in the steel industry provides no clearer evidence. There have been no major strikes; stoppages have been mainly concerned with inter-union demarcation disputes and these have been growing slightly (see table 6). Yet there have been major redundancies at two of the plants from which students for the classes have been drawn. The injury frequency rate has been rising and productivity has been stagnant (thanks mainly to the check in demand); and stagnant productivity means stagnant earnings. That the redundancies and check to earnings did not lead to disputes argues the effectiveness of the procedures for consultation between management and the unions in the plants concerned. This in turn might be associated with the day release classes, although the tradition of consultation was well established long before the classes began.

The most significant development in industrial relations in steel—the new proposals for wider consultation and the appointment of 'worker directors' after the nationalisation of the industry—could be related to the classes. Scunthorpe and Sheffield are certainly the areas which made the running in the demand for industrial democracy to which the Steel Board proposals may be seen as a response. It is increasingly probable that educated trade unionists will demand greater control over the whole of their working environment.

Some would regard the development both of the day release classes and of more effective machinery for consultation as a sop to the militants, designed to head off more radical demands; others would regard these 'reforms' as one certain step on the road to fulfilling the main objective of trade union aspirations. It is probable that most human advances share something of both these two aspects. Some men are satisfied; others are led to ask for more. What is probably of crucial importance in this context is that all attempts to manipulate human beings are, in the long run at least, self-defeating. Success in one generation will only store up the more violent reaction in the next. Those who put their faith in violence may welcome repression; educationists are likely to be more interested in encouraging the growth of self-confidence and self-realisation in human beings. The results may be just as revolutionary.

More educated trade union leaders

If the quality of industrial relations and their association with increased education are hard to assess, it should at least be possible over a period of time to test the connection between education and election to trade union office. In the first few years of the day release courses nearly all of the students were the current union officers at various levels. Increasingly, the classes have consisted rather of those with aspirations for union office or with a general desire to know more about the union and industrial relations procedures. A survey in 1959 of delegates and branch secretaries of the Derbyshire Area of the NUM revealed that 20 out of 54 had been on the day release courses; yet only 14 thought that education would be a top vote winner (while 10 thought it would be a vote loser) in elections to union office. A survey two years later of all students from the Derbyshire classes revealed 11 office holders who had not held office

before they came on to the course. A further survey in 1968 showed that of the 56 delegates and secretaries, 29 had been on the course and the proportion had been increasing since 1965. The 1959 estimate of education as a poor vote catcher had evidently been proved wrong. There may have been some wishful thinking in the 1959 estimate, since some of those who made it may well have been replaced by students from the course!

These surveys cover only the delegates and branch secretaries, but an almost more important result of the courses than any change in leadership may be the change in branch life, as more students become branch committee members discussing and criticising their leaders' work. In Yorkshire there have, in fact, been outspoken criticisms that 'the students of Sheffield University were trying to take over the union'. There may perhaps be some truth in the charge. It was a Yorkshire student who told a BBC interviewer that what he'd learnt from the course was what a 'right lot of dumplings' his union leaders were. This was far from what the tutors thought they had taught him.

In the steel industry only one survey has been carried out and this was of the students from two plants only during the three years 1963–65. Out of 200 students, 140 were branch officers and another 33 were committee members. Five became branch officers during or after the course. For more recent courses only about a half of the applicants are branch officers or committee members but a majority of the others state their interest in serving the union in this way as their main reason for wishing to come on the course. It needs to be added that two students have become full-time officials of their union since they were students and that two of the 'worker directors' of the Midland Group Board of the British Steel Corporation are students from the Scunthorpe courses.

Self-advancement

No surveys have been made which reveal accurately the numbers of ex-students who have gone to other jobs and other activities. This is inevitable in the nature of the case, since these men tend to move house and become non-responders to questionnaires. From general observation the following figures would seem to give a fairly accurate view of the subsequent history of an average day release class in the last few years.

Total number recruited	20
Fell out before the class began	1
Fell out during the three years (sickness, redundancy, emigration, family reasons, etc.)	4
Foreman or charge-hand or other better-paid job in the industry	1
Full-time further education (Ruskin, etc.)	2
Better job outside the industry without further education	2
Part-time union office not held previously	3
Part-time local council or co-operative management committee	1
Same job, etc.	5
Worse job owing to pit closure, plant closure, etc.	1

In the last few years three or four students have gone each year to Ruskin from the day release courses and two or three to Coleg Harlech, Avoncroft and other full-time education centres. Several of these have gone on to internal university degree courses. Three went direct to Sheffield University internal courses and others to Hull University. Two miners, as we mentioned earlier, came back to become tutors on the courses of which they had once been students. Two ex-students have become Members of Parliament and two, as already mentioned, are now 'worker directors' in the steel industry.

Although individual successes in self-advancement are gratifying, neither tutors nor students would regard these as the best test of a course's success. The five from the sample class who are in the same job and industry as before may not only be active now in their branch or local Labour Party without holding any office but may well have developed as much as individuals as the others.

Self-realisation

This leads us to the last and most subjective criterion for judging the value of the industrial day release classes. The aim of the courses is so largely directed to this end that it is on this test that the tutors would want to be judged. Any student who has begun to feel that he is at length realising what it is in him to be can have no doubt about the fact. Yet, even if all the written and verbal statements of students to this effect were recorded, the judgment would seem to a critic to be too subjective for proper evaluation. Similarly, no tutor who sees the same students at the beginning of a three-year course and at the end will have any doubt about what a visiting American professor to the Sheffield Extramural Department described as the 'sea change' that occurs.

Yet it is hard to point to precise evidence of the change. The forms in which this sea change is described will vary and will often seem doubtfully complimentary to the tutor. One miner told this writer that 'as Branch Secretary I'd always got by with flannel; but I had to come on the day release course to learn how to use flannel proper'. A steel worker commented that he didn't know if he'd learnt any economics but he knew he couldn't bear his furniture any longer. A third said that the course had totally estranged him from his wife who had not developed as he had. There are real problems of growth for any man of 35 years and over who begins to dig up his own roots to have a look at them. In fact, it says much for the rapidly changing habits of our social life that the wives of our students adapt themselves so well to the changes which extra education wreaks in their menfolk. Ten years ago a social evening of students and tutors in a mining class would have been without question an all-male affair. Today the wives or girl friends will often be there.

The last fifteen years have seen the most rapid rate of technical progress in the two industries with which we have been mainly concerned. In the coal industry in 1956 only fifteen per cent of all output was mechanised (that is to say, power-loaded), a little less in Yorkshire, a little more in the East Midlands. By 1966 the figure was eighty-five per cent for the country

as a whole, over ninety per cent in Yorkshire and the East Midlands. Some of our students who once wielded pick and shovel are now at the controls of remotely operated long-wall-face machinery with closed-circuit television screens to help them guide the coal cutters. Most of them are still black and tired at the end of a shift and almost as prone as ever to fatal accidents and pneumoconiosis, but some of the sweat and backache have gone from the job.

Similarly, blast furnacemen and coke-oven operators who were mixing coal and ore by hand ten years ago are today watching the dials of wholly automated ore preparation plants. The proportion of craftsmen and maintenance men in our classes grows steadily as the machines take over the processes. It is a transformation profoundly to be thankful for; and it requires a new kind of miner and steel worker both for operation and maintenance.

Conclusion

Man has changed the machines and the machines in turn are changing the men; they will require still greater changes to come. If the day release classes have done anything, it may be that they have helped to facilitate these changes. They will be needed the more in the future; above all they will be needed increasingly to give manual workers the self-confidence to establish themselves as no longer 'hands' to be manipulated but as whole men, who will share in decision-making with the technologists. Increasingly, complex machinery seems at first to widen the gap between the man who understands the machine and the man who operates it. More and more, however, the practical knowledge of the operators has to be joined to the theoretical knowledge of the technologist. What is much more, the machines, above all the computers, are beginning to provide the memory stores, the ultra-rapid analysis and the presentation of possible alternatives for which we once looked to our most gifted and quick-witted intellects. We shall soon all be provided with the equipment for making the big decisions. There is a chance that our society will once again put a premium on the slower, deeper minds and on the capacity for co-operation rather than on individual enterprise. It is to the development of this capacity that our industrial day release classes must be devoted if they are to serve the future as well as the present.

Appendix

Table 1. Adult and further education statistics
(All figures are of thousands of students)

Year	Adult education			Further education*			
	Total	Tutorial class	Residential	Part time day 18 and over	Part time day (21 and over)	Evening Total	Evening (21 and over)
1947	138	13		100		1,550	
1949	163	15		125		1,800	
1950	162.5	14.5		135		2,000	
1951	162	15		140		2,000	
1952	152	14.7		150		2,050	
1953	151	14.4		140		1,830	
1954	142	14		160		1,860	
1955	148	13.8		190		1,900	
1956	158	13.7	9.2	200		2,000	
1957	165	13.3	10.6	250	(100)	1,400	(860)
1958	160	12.5	10.4	250	(100)	1,500	(940)
1959	171	12.2	12.4	260	(110)	1,500	(920)
1960	180	12.1	15.5	270	(110)	1,530	(1,000)
1961	179	12.1	15.25	300	(130)	1,750	(1,100)
1962	210	11.8	16.2	330	(140)	1,850	(1,180)
1963	204	12.3	17	330	(130)	1,550	(1,190)
1964	213	11.5	20.6	360	(150)	1,900	(1,240)
1965	219	11.4	19.5	400	(160)	2,050	(1,380)

*Note: after 1956, autumn term registrations only, and excluding art courses (before 1956, about 100,000 evening students and 30,000 day students over 18).
Sources: *Annual Abstracts of Statistics* 1953, 1957 and 1967.

Table 2. Sheffield University Extramural Department courses for trade unionists in the steel industry

Average attendance figures

		1963/4	1964/5	1965/6	1966/7	1967/8	1968/9	Total starting classes
SFT[1]	A	13	—	—	—	—	—	15
	B	21	15	—	—	—	—	23
	C	—	—	13	10	—	—	13
	D	—	—	15	13	9	—	16
	E	—	—	—	15	13	9	15
	F	—	—	—	—	15	12	17
	G	—	—	—	—	—	15	18
Total SFT		34	15	27	37	36	36	117
App. Prod.[2]	A	16	11	—	—	—	—	18
	B	13	16	9	—	—	—	13 + 9*
	C	—	12	13	9	—	—	12 + 5*
	D	—	—	17	15	10	—	18
	E	—	—	—	16	12	11	17
	F	—	—	—	—	15	10	18
	G	—	—	—	—	—	15	16
Total App. Prod.		29	39	39	49	37	36	136
RTB[3]	A	13	10	—	—	—	—	15
	B	10	12	4	—	—	—	12 + 4*
	C	—	—	13	14	12	—	15 + 5*
	Dt	—	—	—	6	3	3	7
	Et	—	—	—	—	—	5	5
Total RTB		23	22	17	20	15	8	63
JL[4]	A	13	10	—	—	—	—	14
	B	12	9	4	—	—	—	12
	C	—	—	12	10	9	—	14
	Dt	—	—	—	6	4	1	6
	Et	—	—	—	—	—	5	5
Total JL		25	19	16	16	13	6	51
TOTALS		111	95	99	113	101	86	357

*These numbers were added to the class in the second year.
†These classes were combined for 1967/8 with App. Prod. F.
[1]Steel, Peech & Tozer, Rotherham
[2]Appleby-Frodingham, Scunthorpe
[3]Richard Thomas & Baldwin's Redbourn Works, Scunthorpe
[4]John Lysaghts, Normanby Park Works, Scunthorpe

Table 3. Sheffield University Extramural Department three-year courses for mineworkers in Derbyshire and Yorkshire

Year	Numbers starting courses				Numbers completing courses	
	Yorkshire		Derbyshire		Yorkshire	Derbyshire
	Total	No. of craftsmen	Total	No. of craftsmen		
1952–53	—	—	18	—	—	17
1953–4	—	—	20	—	—	—
1954–5	49	—	31	—	—	—
1955–6	—	—	19	—	—	14
1956–7	—	—	30	—	36	11
1957–8	49	—	31	—	—	12
1958–9	—	—	30	—	—	13
1959–60	—	—	30	—	34	10
1960–61	49	13	30	7	—	9
1961–62	—	—	33	6	—	10
1962–63	—	—	34	10	35	12
1963–64	49	19	33	9	—	13
1964–65	—	—	34	15	—	14
1965–66	—	—	37*	14	30	15
1966–67	30	7	35*	12	—	17
1967–68	30	10	36*	10	—	16
1968–69	30	9	37*	11	15	14
TOTAL	330	57	377	94	120	197

*Including six on average for the preliminary course and four from the previous year's preliminary course. There is thus an element of double counting in the figures.

Table 4. Steel industry unions represented among students starting courses
1963 4–1967/8

Unions	Rotherham	Scunthorpe works			
	Steel Peech and Tozer	Appleby Frodingham	Redbourns works	Normanby Park	Total
Process men					
BISAKTA	58	39	20	13	130
NUB	—	18	10	15	43
	58	57	30	28	173
Service and maintenance					
AEU	17	22	12	7	58
GMW	9	5	—	—	14
T & GW	8	—	—	—	8
ASBS & BSSW	5	2	4	2	13
ETU	1	6	6	2	15
HDEU	1	2	1	4	8
CEU	—	1	—	—	1
UPA	—	2	1	1	4
AUBTW	—	13	4	1	18
ASW	—	—	—	1	1
	41	53	28	18	140
TOTAL	99	110	58	46	313

Table 5. Coal industry: productivity, attendance and disputes 1938-68—UK, Yorkshire and East Midlands

Year	Over-all output per man shift (in cwts)			Absenteeism of men on books (%)			Disputes: tonnage lost per 1,000 tons mined			Coal industry share of all industry man days lost in disputes (%)
	UK	Yorks	East Mids	UK	Yorks	East Mids	UK	Yorks	East Mids	UK
1938	22.8			6.4			4.1			52
1939	22.8			6.9			2.9			42
1940	22.0			8.3			2.2			54
1941	23.4			9.0			1.9			31
1942	23.0			10.4			4.0			55
1943	20.6			12.4			5.5			49
1944	20.0			13.6			15.5			67
1945	20.0			16.3			5.3			28
1946	20.6			16.0			4.1			20
1947	21.5	23.5	30.7	12.4	15.1	14.4	9.0	16.7	0.6	37
1948	22.3	24.1	31.7	13.6	14.4	13.0	4.9	9.1	1.1	28
1949	23.4	25.5	33.3	12.3	14.5	13.2	7.0	7.8	0.3	40
1950	24.2	26.3	34.5	12.0	14.3	12.3	4.3	3.5	0.5	31
1951	24.5	26.8	35.8	12.2	14.6	12.0	4.8	6.3	0.7	21
1952	24.2	26.6	36.0	12.0	15.2	11.8	8.1	14.1	1.1	37
1953*	24.6	26.9	36.4	12.4	15.5	13.5	5.5	7.4	0.6	18
1954	24.9	27.3	36.9	12.2	14.9	13.1	7.1	9.6	0.6	28
1955	24.7	26.9	37.1	12.5	15.2	13.4	15.4	39.2	1.0	29
1956	24.8	27.0	37.3	12.9	15.9	13.6	10.4	18.5	4.4	28
1957	24.8	27.2	37.9	13.8	16.8	14.7	8.8	16.8	1.2	6
1958	25.6	28.4	39.0	14.1	17.4	14.5	7.3	15.4	0.8	13
1959	26.9	29.9	42.6	14.7	17.8	14.6	8.0	22.0	2.5	7
1960	28.0	31.0	42.1	14.7	17.5	14.7	8.3	16.5	0.6	16
1961	28.9	32.0	43.6	15.4	18.4	15.2	11.5	32.5	1.2	28
1962*	31.2	34.3	46.3	15.4	18.4	15.2	6.0	10.9	0.8	5
1962/3	31.7	34.7	46.8	15.4	18.4	15.1	5.8	—	—	16†
1963/4	33.4	36.4	48.0	15.9	19.5	15.6	7.2	16.5	1.3	14†
1964/5	34.8	38.3	49.6	16.0	19.2	14.9	7.1	13.4	1.5	5†
1965/6	36.1	38.7	50.2	18.0	21.4	16.3	6.8	7.8	0.6	4†
1966/7	36.6	38.5	50.9	17.3	20.7	15.8	10.4	20.8	0.8	11†
1967/8	39.0	42.0	52.0	18.2	20.5	17.5	2.7	4.5	0	

*In 1953 and 1962 the basis of calculation was slightly changed.
†Calendar years.
Sources: NCB *Annual Reports and Accounts*; Ministry of Labour *Gazette*.

Table 6. Steel industry: disputes, injuries and productivity 1962-68

Year	Disputes			Injury frequency rate (hours lost from injury per 100,000 hours worked)	Output per man year (1954=100)
	No. of stoppages	Working days lost (000s)	% of all industries' days lost		
1962	85	377	6.5	1.8	105
1963	67	106	6.0	2.01	111
1964	130	350	15.0	2.35	121
1965	128	212	7.0	2.48	125
1966	91	108	4.5	2.47	120
1967	139	192	7.0	2.60	119
1968	146	419	9.0	2.73	129

Sources: Ministry of Labour *Gazette*, January 1964, 1967, 1968 and 1969; British Steel Corporation: *Annual Statistics* 1968.

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Table 7. Estimated costs per man-year of day release education by course and supplying body

	Coal industry				Steel industry		Engineering
	Yorkshire		Derbyshire		Yorks	Lincs	
	1 day	Prelim ½ day	1st year 1 day	2nd & 3rd year 2 days	1 day	1 day	1 day
	£	£	£	£	£	£	£
Wages of men							
Employer	48	0	48	96	—	—	—
Training Board	—	—	—	—	96	96	96
Union	48	48	48	96	—	—	—
Accommodation							
University	(5)	—	—	—	(5)	—	—
Tech. college	—	—	—	—	—	—	(5)
Union	—	(5)	(5)	(10)	—	—	—
LEA	—	—	—	—	—	(5)	—
Administration for							
University	(3)	(3)	(3)	(6)	—	—	—
Union or student	—	—	—	—	2	2	—
TUC	—	—	—	—	—	—	5
Lecturers' fee or salary							
University (DES)	25	25	25	50	25	20	25
Tech. college	—	—	—	—	—	—	10
WEA (DES)	—	—	—	—	—	5	—
Totals							
University or WEA (DES)	33	28	28	56	30	25	25
Tech. college or LEA (DES)	—	—	—	—	—	5	15
Employers or training board	48	—	48	96	96	96	96
TUC, union or student	48	53	53	106	2	2	5
TOTAL	129	81	129	258	128	128	131

Notes: (a) Figures in brackets are nominal, no charge being made.
(b) Lecturers' salaries are paid as to three-quarters by the DES and a quarter by the university. Assuming tutors' average salary = £1,750 and three-quarters is for teaching, that equals £1,300. Tutors teach about 130 sessions (including summer schools, weekend schools, etc., or 26 weeks × 5 sessions). So each session costs £10 divided amongst 18–20 students. 24 days or 48 sessions of day release = 480÷19 = £25 per student per year.
(c) Wages of men assumed to average £4 per day.